

WHAT IS CLAIMED IS:

1. An optical module interfacing device, connected to a female connector for an SFP type module for providing data  
5 transmission/reception functions through an UTP cable, comprising:

a board having the same dimensions as those of the optical module;

a male connector, having the same dimensions as those of  
10 the optical module, formed at a side surface of one end of the board and connected to the female connector for the optical module mounted on a host board; and

an RJ female connector provided with a plurality of pins formed on an upper surface of the board, respectively  
15 corresponding to pins of the male connector, according to standards.

2. The optical module interfacing device as set forth in claim 1,

20 wherein the board and the male connector have the same dimensions as those of the SFP type optical module.

3. The optical module interfacing device as set forth in claim 2,

25 wherein the RJ female connector is a female connector

having a standard of RJ-45.

4. The optical module interfacing device as set forth in claim 2 or 3,

5        wherein optical module pins MOD-DEF0, MOD-DEF1, MOD-DEF2, TX fault, Rate Select and three ground pins out of pins of the male connector are connected to pins of the RJ female connector,

         further comprising an interfacing circuit for converting  
10 power of the male connector into power of the RJ female connector through a regulator and for supplying the power converted by the regulator to connection lines between the optical module pins MOD-DEF0, MOD-DEF1, MOD-DEF2, TX fault, Rate Select and three ground pins of the male connector, and  
15 the pins of the RJ female connector, through resistors of designated impedance.

5. An Ethernet system for simultaneously supporting data communication through optical and UTP cables, comprising:

20        a host board;

         a physical layer, mounted on the host board, for supporting data communication through the optical and UTP cables;

         an optical module, provided at an end of the optical  
25 cable, for converting an optical signal to an electric signal

or an electric signal to an optical signal;

optical module interfacing means, provided at an end of the UTP cable and having the same dimensions as those of the optical module, for supporting an RJ interface; and

5 an interfacing unit, mounted on the host board and including a female connector having the same dimensions as those of the optical module, for connecting the optical module to optical data communication supporting ports of the physical layer when the optical module is inserted into the female  
10 connector and for connecting the optical module interfacing means to UTP data communication supporting ports of the physical layer when the optical module interfacing means is inserted into the female connector,

wherein one of the optical module and the optical module  
15 interfacing means is detachably mounted on the interfacing unit.

6. The Ethernet system as set forth in claim 5, wherein the optical module interfacing means includes:

20 a board having the same dimensions as those of the optical module;

a male connector, having the same dimensions as those of the optical module, formed at a side surface of one end of the board and connected to the female connector for the optical  
25 module mounted on the host board; and

an RJ female connector provided with a plurality of pins formed on an upper surface of the board, respectively corresponding to pins of the male connector, according to standards,

5            wherein the RJ female connector is connected to an RJ male connector provided at an end of the UTP cable.

7. The Ethernet system as set forth in claim 6,  
          wherein the board and the male connector have the same  
10    dimensions as those of an SFP type optical module.

8. The Ethernet system as set forth in claim 7,  
          wherein optical module pins MOD-DEF0, MOD-DEF1, MOD-DEF2, TX fault, Rate Select and three ground pins out of pins  
15    of the male connector are connected to pins of the RJ female connector,

          further comprising an interfacing circuit for converting power of the male connector into power of the RJ female connector through a regulator and for supplying the power  
20    converted by the regulator to connection lines between the optical module pins MOD-DEF0, MOD-DEF1, MOD-DEF2, TX fault, Rate Select and three ground pins of the male connector, and the pins of the RJ female connector, through resistors of designated impedance.

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